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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WARE, CICELY Q

ART UNIT PAPER NUMBER

2634

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,822

Applicant(s)

BIRRU, DAGNACHEW

Examiner

Cicely Ware

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 12/09/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 9 is objected to because of the following informalities:
 - a. Claim 9, line 1, examiner suggests applicant delete ":" for clarification purposes.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 7, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Lim (US Patent 5,748,674) (cited by applicant).

(1) With regard to claim 1, Lim discloses in (Fig. 6) first (50) and second (60) feedback equalizer signals for controlling a decision feedback equalizer, wherein the first feedback equalizer signal is supplied as output from a first feedback loop (50, 70,

20, 30) and is delayed by an implementation delay (50b) and wherein the second feedback equalizer signal is supplied as output from a second feedback loop (60, 70. 20. 30) and is free of the implementation delay, wherein said first and second feedback loops process decisions from a decision device (30) common to both of said first and second loops (abstract, col. 5, lines 30-36, 51, 58).

(2) With regard to claim 5, Lim discloses in (Fig. 6) a decision feedback equalizer, comprising: a forward equalizer (10); a decision device (30); filter means for generating a first feedback signal (50a) responsive to first filter coefficients optimized to process postcursor echoes adjacent to a main channel and a second feedback signal (60) responsive to second filter coefficients optimized to process all other postcursor echoes; and means for applying the first and second feedback signals (70) to thereby control the DFE (col. 1, lines 17-21, 25-29, 44-48, col. 3, lines 61-67, col. 4, lines 1-3, 225-26, 29-36, 42-47, col. 5, lines 1-15, col. 6, lines 1-3, 46-47).

(3) With regard to claim 7, claim 7 inherits all the limitations of claim 5. Lim further discloses a digital television receiver including the DFE (col. 2, lines 22-29).

(4) With regard to claim 8, claim 8 inherits all the limitations of claim 5.

Allowable Subject Matter

5. Claims 6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses first and

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second feedback equalizer signals for controlling a decision feedback equalizer. Prior art references show similar methods but fail to teach: **“wherein the number of second filter coefficients is much greater than the number of first coefficients”**, as in claim 6; **“applying the first and second feedback signals to the first and second feedback loops, respectively, to thereby control the DFE”**, as in claim 9.

6. Claims 2-4 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses first and second feedback equalizer signals for controlling a decision feedback equalizer. Prior art references show similar methods but fail to teach: **“the first and second adders, the decision device and the feedback equalizer constitute a first feedback loop”**, as in claim 2.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
April 28, 2005


AMANDA T. LE
PRIMARY EXAMINER